

THE JOURNAL OF THE
AMERICAN
MILITARY HISTORY
FOUNDATION

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FOREWORD

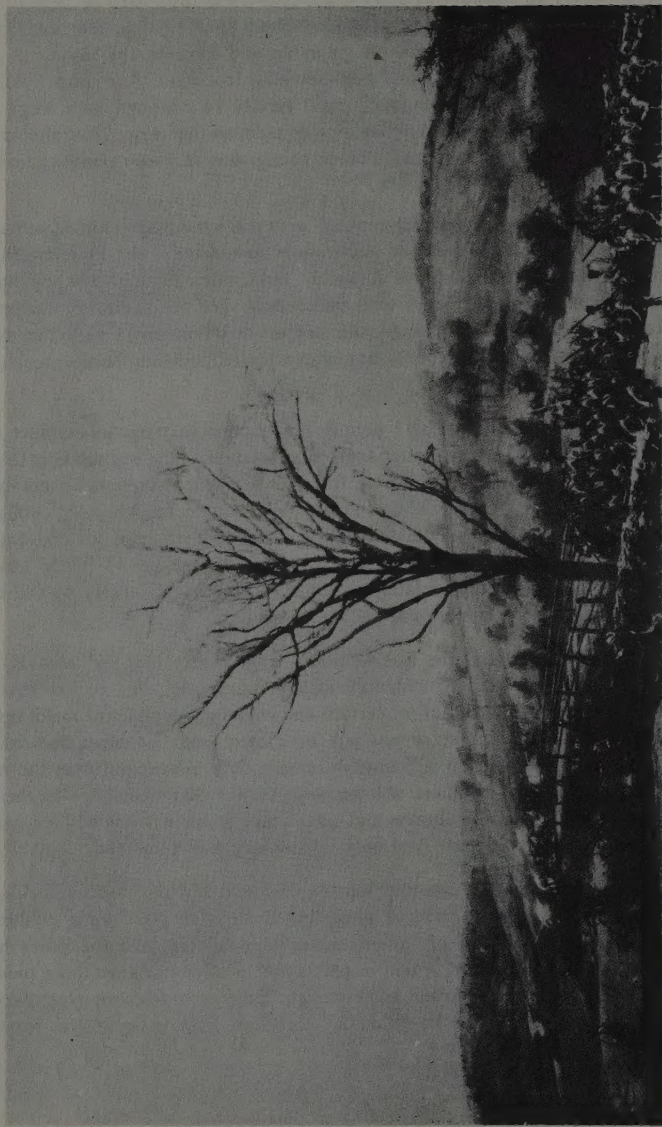
The American Military History Foundation was organized in June of 1933 on the initiative of a group of officers on duty at the Army War College. Its objectives were designed so as to stimulate and advance the historical study of all that relates to war, with due emphasis upon the American field. The interest in this subject, however, could hardly be confined to a single professional group or a single manner of approach, so that now, after almost four years its rolls include men and women conversant in every phase of military history.

This broad range of interest coupled with the wide dispersion of our membership has made some form of publication imperative if the Foundation is to continue. Thus far our efforts to secure publication through the medium of other organizations have met with no success. We are therefore confronted by the alternatives of abandoning our project or of ourselves assuming all the responsibility. The latter course has been adopted and the decision reached to publish a quarterly journal.

Such a journal as this has a definite and exclusive purpose. It must serve as a medium for the free interchange of constructive and stimulating thought among members. In accomplishing this it must be comprehensive enough to embrace all of the varied fields of interest; it must be scholarly enough to inspire confidence, yet tolerant enough to encourage the work of the student; formal enough to command respect, yet popular enough to invite interest. Finally, in the matter of history, it must confine itself largely to the facts, leaving their interpretation and use to its readers.

The present dues of the Foundation are so nearly nominal, that at first, only the humblest type of magazine can be attempted. We realize that this brevity, the lack of material on certain subjects and its physical make-up will tell against it. Yet limited means will ever be a lesser problem than lack of interest; and this journal will always remain only as successful as the membership permits. If members will grow to realize that it belongs to them, if they will freely use its columns and help shape its policies, it will expand its usefulness with each year. And only in this way can it succeed.

This is, frankly, an adventure—an experiment. If it is unsuccessful it will largely justify the contention of some that there is no place for a publication of this sort in the field of American military history. On the other hand, should it prove successful, it will in part stand as a memorial to those pioneers in our field, whose application and foresight have permitted our progress thus far. With due diffidence then, we lay this, our first issue of the JOURNAL before our members. How!



"BATTLE OF CONCORD BRIDGE."

(Taken from model by Samuel Guernsey and Theodore B. Pitman in the Concord Antiquarian Society.)

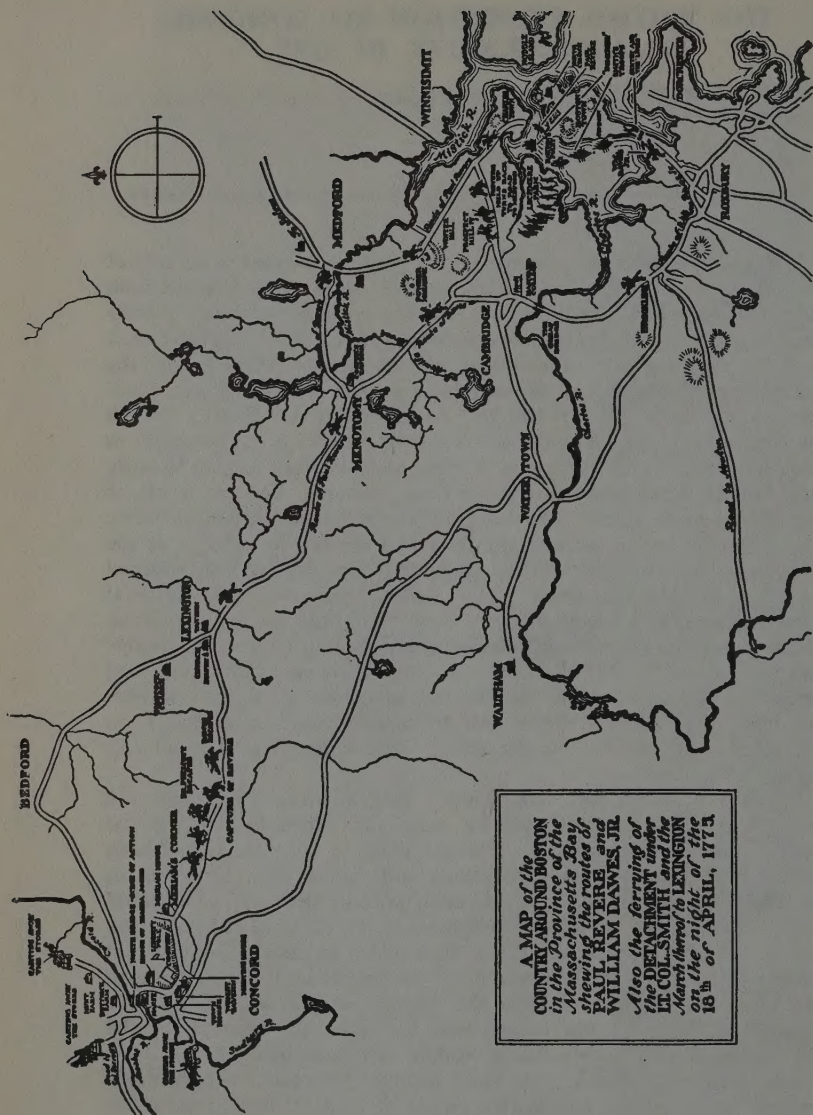
THE BRITISH EXPEDITION TO CONCORD, MASSACHUSETTS, IN 1775

BY ALLEN FRENCH.

(Reprinted, by kind permission, from the *Journal of the Society for Army Historical Research*,
Spring, 1936.)

English historians commonly do not give much space to a study of the military expedition which, on the 19th of April, 1775, marched from Boston to Concord. While to an American it is of perennial importance as the beginning of the Revolutionary War, to an Englishman it is but one of many expeditions, almost indistinguishable in the tremendous sweep of his military history. As this story has, however, lately been illuminated by the discovery of several British manuscripts, I am, though an American, making an attempt to analyse it from the British point of view, endeavouring to give to army men details which until now have been obscure. But an article of this length must ignore everything but the essentials of the narrative. I will assume on the part of my readers a general knowledge of the previous conditions—the military methods of that day, and the strained situation in Massachusetts. The British Governor was General Thomas Gage, with headquarters in Boston. There was much political discontent in the colony, and considerable ill-feeling between the troops and the militia. Anticipating war, the Provincial Congress had assembled munitions, and had stored much of them in Concord. Informed that the Provincial Congress was about to assemble an "army of observation" under arms, Gage determined to send and destroy the stores.

The experiment was hazardous. Gage's army was small, not more than 4,000 privates, and he could not afford to lose the 700 that he planned to send out. Though early in 1774 Gage had been confident of subduing the Americans with but a few regiments, in November he had asked for 20,000 men, who, by the way, were denied him. He had had accurate information of the plans of the colonists, and had even been informed (by a letter which he sent to the Colonial Office) of the exact method which the provincial militia would use in attacking his troops. It was the fashion of the day to call the Americans cowards; but Gage, who had seen the courage of the Virginians at Braddock's defeat, should not have believed that New Englanders would flinch. He knew enough, therefore, to have made every effort to secure success by means of a swift expedition which should succeed in its purpose and return without shedding blood. Perhaps he believed that the numbers which he sent would be enough to awe the provincials into quiet. But speed and secrecy were essential.



A MAP of the
COUNTRY AROUND BOSTON
in the Province of the
Massachusetts Bay,
showing the routes of
PAUL REVERE and
WILLIAM DAWES, JR.
Also the ferrying of
the DETACHMENT under
LT. COL. SMITH and the
March thereof to LEXINGTON
on the night of the
18th of APRIL, 1775.

The first he failed of because the commander whom he chose, Lieutenant-Colonel Francis Smith of the 10th Regiment, was sluggish and resentful of advice. Of secrecy Gage was robbed by the quickness of the Yankees.

Yet he tried to prevent news of his plans reaching Concord. On the afternoon of the 18th he sent out perhaps a dozen mounted officers to post themselves, early in the night, between Lexington and Concord, and stop the main road. These were under the command of Major Edward Mitchell of the 5th; and some of the members of the group were Captain the Hon. Charles Cochrane of the 4th, Captain Charles Lumm of the 38th, and Lieutenants Peregrine Francis Thorne of the 4th and Thomas Baker of the 5th. Travel between Lexington and Concord was very light after midnight, and for a time all the patrol stopped and held were a few harmless travellers, who could bring to Concord only the news that these officers were out.

The detachment under Smith was made up of the light infantry and grenadiers of the 4th, 5th, 10th, 23rd, 38th, 43rd, 47th, 52nd and 59th Regiments and of the Marine battalion, with the grenadiers of the 18th Regiment, whose light company was not in Boston. In other words these were the flank companies of all Gage's regiments, detached for this purpose. Frequent short practice marches had put the whole little army in fair training for a push of this sort. As the distance was but seventeen and a half miles, a prompt start and a quick march should have brought the expedition to Concord by dawn.

Time was lost, however, at the very beginning. The detachment assembled at the waterfront, Smith arrived when the boats were all filled, and the first trip was made across the tidal Charles. A second trip had to be made before all the men were landed, probably about midnight, and then a wait of an hour followed, probably for rations. The march did not really begin, it would appear, until one o'clock, though some of the members of the expedition put the time as late as two.

Meanwhile the Boston Whigs had noted the departure, and sent out, by different routes, two messengers to alarm the country. One was Paul Revere, who, dodging two mounted officers who tried to stop him, brought his news safely to Lexington, where he warned Samuel Adams and John Hancock to put themselves in safety. The other was William Dawes, who reached Lexington soon after Revere. In company with a young Concord doctor, they started for Concord, only to be intercepted by Major Mitchell's patrol. Revere was taken, but Dawes turned back, and the young doctor, knowing the country, escaped through fields and brought his news to Concord. The captured Revere warned Mitchell that the expedition was delayed and that five

hundred provincials would soon be in Lexington, an excellent piece of bluff that convinced Mitchell that he had best warn the approaching column.

Already Smith, at last under way with his detachment, had made his own discovery that the country was alarmed, for he heard the quiet of the night broken by church bells and signal guns. Disturbed by this, he sent a messenger to Gage asking for support, and also sent in advance his second-in-command, Major John Pitcairn of the Marines, with six light companies, to seize and hold the bridges at Concord. As Pitcairn's companies hurried on they were preceded by certain enterprising officers (Lieutenants William Sutherland of the 38th Regiment, Jesse Adair of the Marines, and William Grant of the Artillery) who, though on foot, captured, one by one, mounted scouts sent by the militia at Lexington. Daylight was approaching when the column was met by Major Mitchell and his patrol, with their warning. On this news the advance party halted, and Pitcairn, coming up from its rear, and hearing from Sutherland the additional report that a countryman had snapped his piece at him, ordered his men to load and move forward, "but on no account to fire, or even attempt it without orders."

Thus appears before us one of the most reprobated Englishmen in American Revolutionary history, long believed to have given the order to fire at Lexington. But Pitcairn was well liked by even his opponents among the Americans, and everything in his private life, as we now know it, goes to show that strongly as he blamed the "foolish bad" Provincial Congress, as he called them, he would keep within his orders. And Smith had given him the order not to fire unless attacked, which he, in his own way, passed on to his men. Of late years American historians have tried to do justice to Pitcairn, and fortunately his own report to Gage has at last appeared, by which to judge of what happened at Lexington.

On Lexington Green were assembling, just at sunrise, a part of the militia of the town. Alarmed much earlier by Revere, they had concluded, because their scouts did not return, that there was nothing to report, and had scattered to their homes or, for those who lived at a distance, to nearby taverns. But at last one scout, seeing and avoiding the British advance-guard, galloped into town with the warning, and such of the militia as were within sound of the drum hastily assembled, some seventy at most. The first of the British saw them standing on the green, apparently intending to let the regulars pass by at a distance of some sixty yards, if only they came and went in peace. Had Smith started earlier his men might not have seen the provincials in the dark; but as it was, the leading companies,

perhaps taking their presence as a challenge, at once turned on to the green, the first of them, the 10th, spreading out to full company front. The rest followed, and Pitcairn, perceiving, galloped up to command them, followed by Mitchell's mounted officers.



LEXINGTON GREEN AT SUNRISE, APRIL 19th, 1775.
Showing the more important buildings and the approximate positions of the troops and minute-men.

Recognizing their overwhelming force, the militia captain ordered his men to disperse. Some of them obeyed, but at least half of them doggedly remained. Pitcairn ordered them to lay down their arms; and when they did not obey, while some continued to depart, the leading company hurried to intercept them. On this Pitcairn shouted to his men not to fire, but to surround the provincials and disarm them.

Then someone fired a shot, a fateful action with momentous consequences. Whether the shot was from gun or pistol, by British or American, by accident or design, is still in doubt, each side having

always imputed it to the other. Its bullet seems to have gone wild. But the sound of it was enough. Without orders the leading company, at closest range, at once fired a volley. I have ventured the suggestion, in one of my books, that as at Dettingen "the whole three ranks made a running fire of their own accord." On the accumulated evidence it seems a fair explanation, and a natural outcome of the strong feeling between troops and provincials. A feeble return fire was made, with no execution. Pitcairn's horse was grazed, and a private wounded in the hand. But the British killed eight of the provincials and wounded ten, in this first bloodshed of the Revolution. With difficulty Pitcairn, angrily gesticulating, controlled his men. Smith came upon the ground with his grenadiers, and after a short delay the whole marched on to Concord, uninterrupted in those next five miles.

But from the moment of the British departure from Lexington, American revenge was certain. The alarm already sent out, merely precautionary, now was seconded by another. Americans had been killed at Lexington: let every man now turn out. Long before noon hundreds of the militia, singly or in companies, were on the march. All winter their leaders had drilled into them the precept, they must not fire first. Now they were released.

As the British approached Concord, on a road that crossed a wide meadow, they saw in front of them a ridge which sloped down to this plain, and on its top another armed force, watching them. This consisted of the minute-man companies of Concord and Lincoln, who, on seeing that the British were too strong for them, turned and marched away, with music playing. The light infantry climbed up the ridge and followed them; the grenadiers kept to the road below*; and the provincials, gathering in their militia companies as they went, abandoned the centre of the town and took up a position north of it, near a bridge across which they could make a final retreat. As they were for the moment out of reach, Smith halted his troops in the town, and proceeded to execute his orders, which were to search for and destroy the military stores. Informed of their hiding-places, he set men to searching in the town, sent a detachment to hold the south bridge, and ordered six companies of light infantry to the north bridge,† three to hold it and three (later reinforced by a fourth) to march two miles beyond it, to hunt for stores at the farm of Colonel James Barrett. They were under the command of Captain Lawrence Parsons, of the 10th Regiment.

As this detachment marched out of the town they were seen by the provincials, who at once crossed the bridge, perhaps two hundred

* See Sketch Map on p. 27.

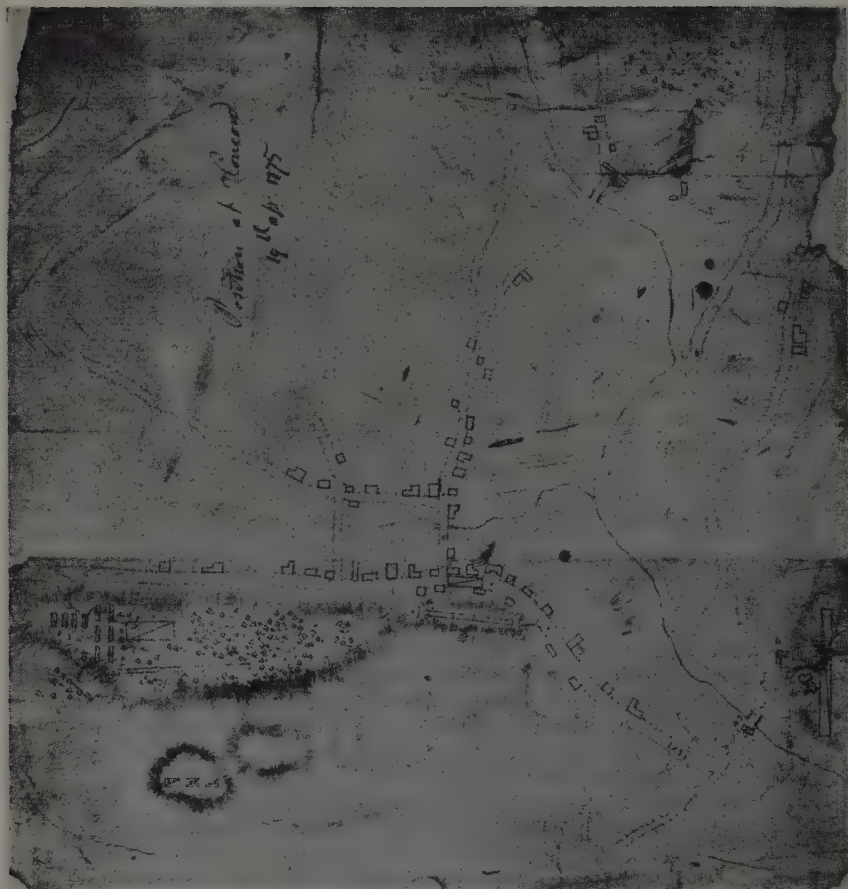
† See illustration facing p. 24, and map facing p. 30.

yards in front of the regulars. They marched up another hill beyond it, and out of sight. Captain Parsons, coming to the bridge, therefore had before him the following problem. The provincials, reinforced, might interfere with his return from the farm to which he must march, two miles beyond the bridge. He must protect both the bridge and his line of march. Consequently he left at the bridge the 5th and 43rd light companies, and posted on the hill beyond it the 4th and 10th, the first commanding his road toward the west, and the second in position to watch the provincials, who had retired to the north. With the 38th and 52nd light companies he marched to Barrett's farm. A little later Smith sent him the light company of the 23rd, and Parsons sent for the 5th to join him.

Thus he had four companies at the farm. They searched the place, and burnt what munitions they found, which were not many, for some they missed and the rest had been removed. They finished this work and marched back toward the town, not suspecting until they reached the bridge that anything had happened.

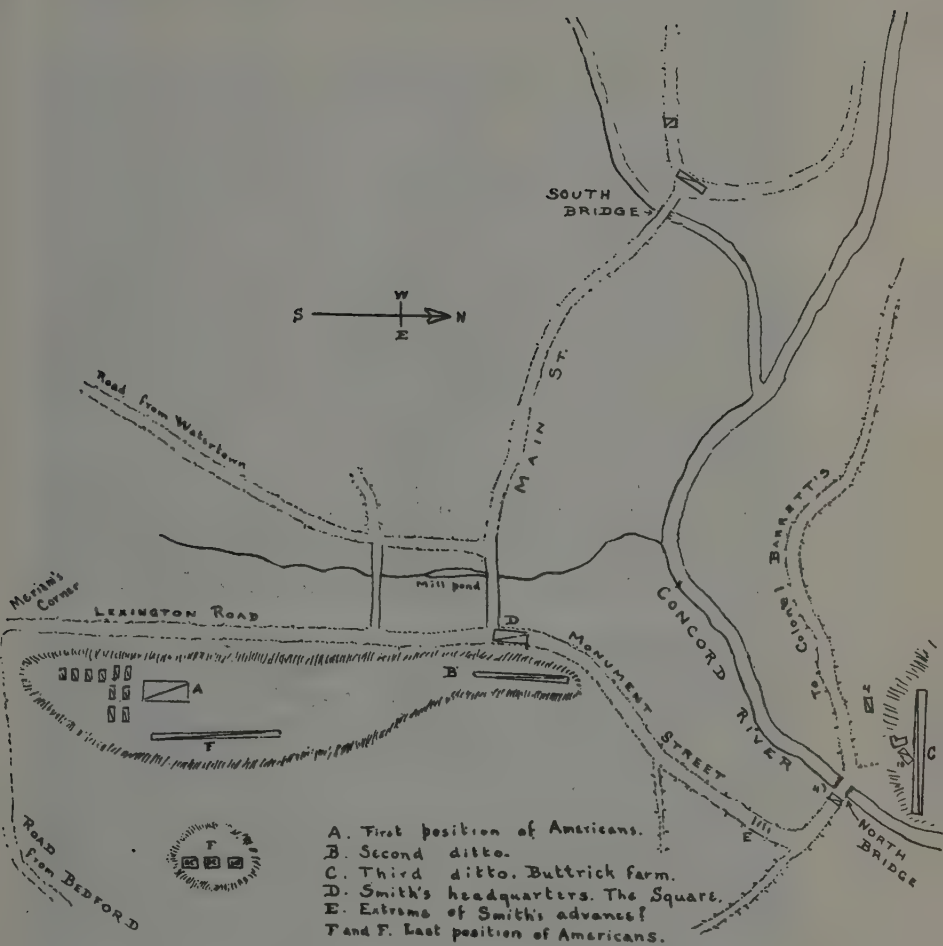
Meanwhile, at the bridge, Captain Walter Sloane Laurie, of the 43rd, was in command of his own company, and those of the 4th and 10th. His lieutenants were Edward Hull and Alexander Robertson. Of the company of the 4th, the captain is not named as present; the lieutenants were Edward Thoroton Gould, and John Barker, the diarist. The captain of the 10th Company was Parsons, who had marched on to the farm, leaving behind him Lieutenant Waldron Kelly in command. Lieutenant Hamilton, feigning illness, had not come, and was later cashiered for it; but as volunteer in his place was Ensign Jeremy Lister, whose narrative, lately discovered, tells us much. All three of these companies were on the farther side of the stream, for even the company of the 43rd had crossed the bridge. The other two were each perhaps a couple of hundred yards away.

With the expedition was Lieutenant William Sutherland, already mentioned. Coming as a volunteer, attached to no company, he had made himself useful on the march to Lexington, and marching from Concord with Parsons' detachment he stayed with the 10th Company on the hill until to his disgust he learned that Parsons had gone on to the farm. Begging of Lieutenant Kelly two men to go with him, he was following after Parsons when one of the men said to him, "Sir, the company of the 4th are retiring." Looking for the reason, Sutherland saw "a large body" of provincials marching almost within pistol shot; and thinking that it "would be disgracefull to be taken by such Rascals" he hurried to the bridge. Meanwhile the companies of the 4th and 10th, seeing the approach of the provincials, marched down and put themselves under the command of Captain



CONTEMPORARY MAP OF THE POSITION AT CONCORD.

(Drawn by Frederick Mackenzie, Lieutenant 23rd Regiment.)



SKETCH INTERPRETING MACKENZIE'S MAP.

(Drawn by Allen French.)

Laurie. Yet, strangely, they still remained on the American side of the water, and for "a long time very near an hour" remained so, watching the provincials gathering and forming beyond a wall at the top of the low hill.

Captain Laurie did, it is true, send Lieutenant Robertson, probably on foot, to ask support from Smith. Reply was returned by Captain Lumm, mounted, that a reinforcement would come. Laurie sent him galloping back to hurry it. Smith, however, put himself at the head of a detachment of grenadiers, and (wrote Lieutenant Barker) "being a very fat heavy man he wou'd not have reached the Bridge in half an hour." And by that time it was too late.

For the Americans on the hilltop, growing restless as companies joined them from other towns, and as they saw smoke rising from the village, resolved "to march into the middle of the town for its defence, or die in the attempt." Possibly as many as four hundred and fifty in number, they went in double file against the hundred regulars at the bridge. Because of uncertainty whether men had been killed at Lexington, they were given the order not to fire first. By a byway they marched downhill to the main road. Then turning, they marched straight at the bridge.

On seeing them in motion, Laurie did what he should have done long before, and withdrew his three companies across the bridge. Once there, in great haste and with too little time, he attempted to form his men for a manœuvre in which, it presently appeared, they had not been drilled. In addition, he complicated this one with another.

For years before this, and for years after, there used to be in British and American books of tactics a manœuvre called Street-Firing, by which a column of men in platoons or squads could, though armed only with muskets, maintain a nearly continuous fire along a narrow way. The first unit having fired, it would divide right and left, march down the sides of the column to the rear, and forming again, load and wait its turn to fire once more. The successive units could fire from their own ground, or could advance to the position of the first or even beyond it for firing, thus making the column retreat, or hold the same position, or advance. Laurie, by his own account, planned to give ground as his "divisions" fired one by one. That at least one of the officers did not understand what he was about is evident from the comment of Lieutenant Barker in his Journal, though Lister named the scheme correctly.

Between the low stone walls that flanked the road, Laurie formed the companies of the 4th and 10th in column for Street-Firing, the 4th nearest the bridge. But at the same time he tried to make the

company of the 43rd line the bank to the right and left of the bridge, to fire upon the approaching provincials. This order does not seem to have been understood by even his own company, for only a few men crossed the left-hand wall, under the lead of Lieutenant Sutherland.

This enterprising officer had been consulting with Laurie since rejoining him; he had advised sending for support, and agreed that it was wise to retreat across the bridge. He was the last to cross, and on Lister's advice had tried to take up the planks—the proper means to destroy Parsons' detachment, had he succeeded. But the Americans approached so fast that after a few planks had been taken up the attempt was given over. Sutherland then crossed the wall, calling to the men of the 43rd to follow. There he was in position to fire on the flank of the American column. It was his opinion that the Americans fired first; but Laurie and Gould thought otherwise, and so did Smith, reporting. Americans claimed that the British fired warning shots and then a volley. Sutherland, in the field, fired his fusil.

The Americans had approached the bridge with Major John Buttrick, of the Concord minute-men, in the lead, the Acton Company immediately behind, and the Concord companies following. Men were wounded by the first few shots, and then at sixty yards the volley killed the Acton captain and one of his men. "Their balls whistled well." Buttrick then gave the order to fire, and the provincials, some of them breaking from the column in order to see, responded. "A general popping," said Laurie. But Lister spoke with more respect of it. "The weight of their fire was such that we was oblidg'd to give way then run with the greatest precipitance." There is no doubt that the regulars broke. With a chance to give a good account of themselves, why should they not have stood for at least a few more volleys?

First, as there had been no fighting for more than fifteen years, all of the younger men there were green soldiers. Second, the whole were a haphazard group of companies from different regiments, unaccustomed to act together, and, except for the 43rd, unused to Laurie. Again, it is plain that Laurie's manœuvre was not understood by all, so that the confusion at the head of the column, and the perplexity at its rear, were extreme. The retreat of the first squad, after firing, down the two sides of the column, perhaps in haste in order to reach the rear and load, may to many have seemed like flight. And next the American volley did fair execution. A private was killed and three wounded, two mortally. A sergeant was wounded, and beside him four lieutenants, Sutherland, Gould, Hull and Kelly, the last three of whom were in command of companies. Sutherland afterward wrote: "I called to Capt. Laurie I was wounded & made the

best of my way leaving 2 of the men that turned out with me dead on the Spot & I myself retiring under a fire from the Enemy." With leaders thus disabled and quitting the field, with the head of the column seeing the Americans still coming on, and the rear apparently seeing their own men in flight, here are reasons enough why the regulars broke, and why Concord Fight was over almost before it had well begun.

The Americans were quite as green soldiers as the British. Too many of them stopped to look after their few wounded. The rest did not pursue the regulars far, but seeing the column of grenadiers approaching, formed behind a wall on a hillside, and waited to see what would be done by Smith. Seemingly abandoning Parsons to his fate, he marched back to the village, and there stayed until noon, perhaps two hours. Parsons joined him unmolested, though his men were dismayed to see one of the wounded men, of the 4th Regiment, lying near the bridge with his head hacked. This was the deed of a young American, not a member of the militia, who coming alone to the empty battleground, struck the mortally wounded man. Parsons' men reported what they saw: "the Skin over His Eyes cut and also the Top part of His Ears cut off." This was not scalping; but word spread among the troops that he, and also others, had been scalped.

During the long wait of full two hours, Americans and British merely watched each other, though to Smith time was invaluable. The provincials were strengthened by more reinforcements, but never thought of blocking the road of Smith's retreat, by which means they could have captured his whole force.

As it was, he escaped narrowly enough. His little column, with the wounded in chaises, had gone but a mile before they were attacked in the rear. From that time on, rear and flanks were shot at by the provincials, fighting individually. Diarists and letter-writers among the troops complained that the Americans would not come into the open to be killed, and Smith stated that "they did not make one gallant attempt." But at the end of the day Lord Percy reported, "They knew too well what was proper, to do so." Using every cover, and often behind impenetrable stone walls, they came as close as they dared. Some did actually come too close, some were caught in houses, and others were surprised by British flankers. But on the whole they took good care of their own skins.

The five miles to Lexington were almost too much for the regulars. The mobility of the Americans seemed to multiply their numbers, and the more the soldiers missed them, the more wildly they fired, until their ammunition was running low. The work of flanking was exhausting in rough country or over ploughed fields. Men were



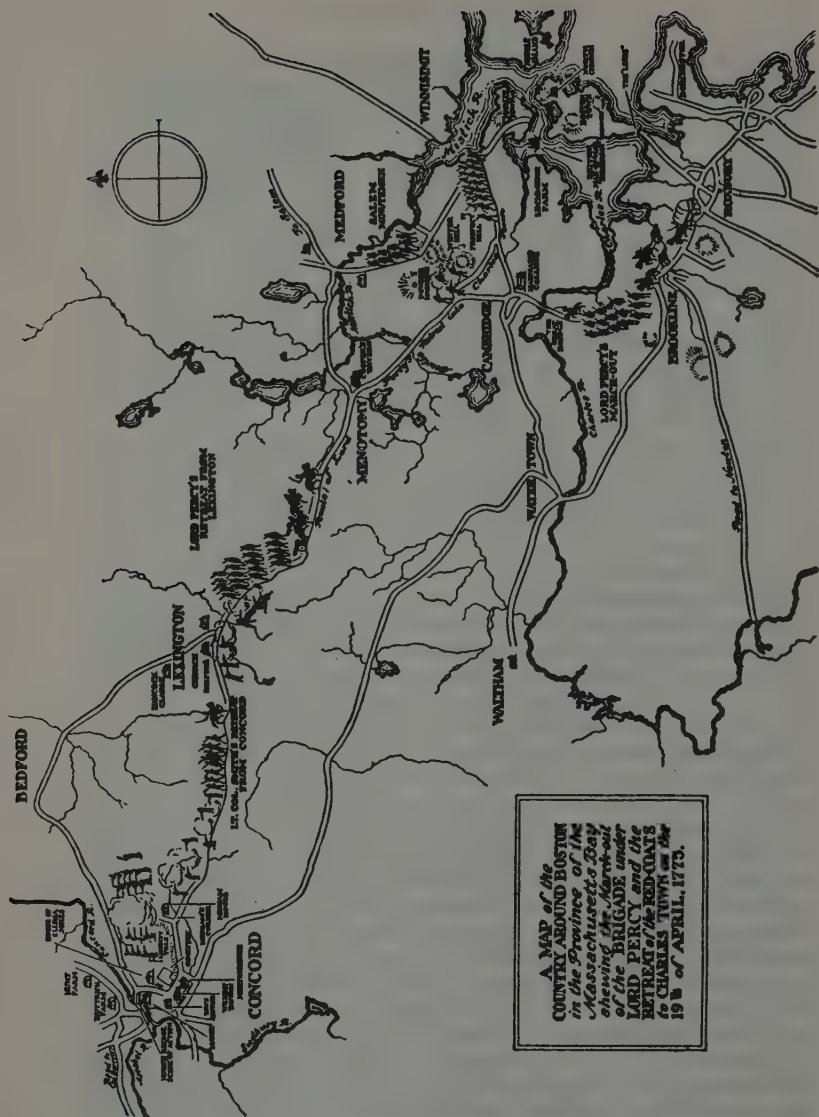
CONCORD, APRIL 19th, 1775.

Showing the roads as they were at the time of the fight, and the more important buildings. (Inset: Merriam's Corner.)

frequently wounded, some were killed, Pitcairn was dismounted, and Smith was wounded in the leg. "We began to run," wrote Ensign de Berniere of the 10th, "rather than retreat in order." At last, after passing Lexington Green, "the officers got to the front and presented their bayonets, and told the men that if they advanced they should die: Upon this they began to form under a very heavy fire." Without help they must have surrendered within another three miles.

Fortunately, though almost too late, support had been sent out. Gage had ordered out his first brigade (the battalion companies of the 4th, 23rd, 47th, and Marines, some eight hundred men) under command of Lord Percy, Colonel of the 5th, and Brigadier. Again the story of the start is one of long and unnecessary delays. But marching out at last through Roxbury, they found no opposition whatever, and met the almost exhausted detachment in the outskirts of Lexington. "I had the happiness," wrote Percy, "of saving them from inevitable destruction." His two field-pieces, aweing the inexperienced Americans, helped protect the troops while they rested for a half-hour. For that time the provincials were quiet. But when the British marched on, the Americans attacked them again.

Fortunately also for the troops, the Americans had no organization with which to make their attack effective. Coming to the field mostly by companies, they scattered and fought from cover. There is reason to suppose that their only General on the ground, appointed but not



A MAP of the
COUNTRY AROUND BOSTON
in the Province of the
Massachusetts Bay
showing the March-out
of the BRIGADE under
LORD PERCY and the
RETREAT of the RED-COATS
to CHARLES TOWN on the
19th of APRIL, 1775.

yet commissioned, with no Aide to carry his orders and no regimental officers in position to receive them, tried at one place to stop Percy's advance. But if so, he failed; for though his effort brought the column to a halt, Percy's cannon, brought up from the rear, scattered the assailants. Except for this, the chief attack of the Americans was in flank or rear. The weary detachment, marching at the head of Percy's column, thus were mostly free of fighting. Yet the attack was ceaseless. Percy wrote of the "incessant fire, which like a moving circle surrounded and followed us wherever we went." The Americans hung so close on the rear that again and again the weary rear-guard had to be changed, while from time to time they halted to unlimber the cannon. Then the wounded tumbled from the carriages, the cannon fired, the provincials scattered, and the wounded were lucky to perch on the limbers again, as the column started onward. Mile after mile the troops thus plodded on, their flankers exhausted by their efforts, their ammunition gradually growing less, their numbers slowly dwindling.

It is true that the dwindling was slow. The British killed were but 73, the wounded 174, the missing 26, a total of 273, less than one man in five. With four thousand Americans eventually in the fight, why were the casualties so few? Partly because of the clumsy firelocks, whose effective range was little more than a hundred yards, and whose best distance, for accuracy, was but sixty. And accuracy is a misleading term. There was not a rifle there, on either side; and the muskets, without rear sights, were used like fowling-pieces for blazing away. Few men, American or British, came to the field with more than thirty-six rounds; and when the provincial powder was gone the men could get no more, and were forced to give place to others. Nor were many of them marksmen, for they were not frontiersmen, nor even hunters. It was bad enough shooting indeed. Yet none of the regulars complained of it.

On their part, the troops killed but 49 of the Americans, and wounded 39, no great testimony to their own skill. Yet the military memoirs of the eighteenth century show many a famous battle with the proportion of casualties no worse than this. It was not until these same contestants met at Bunker Hill, some two months later, that they showed what they could do, at close range or with bayonet.

One trap was set for Percy, which he had pointed out himself. Leaving Boston by land, he had crossed the Charles River by the Great Bridge. Expecting him to follow the same route in returning, the Americans took up the planks of the bridge, and a strong force was waiting for him. And it was in order to force him to take the road to the bridge that the single attempt to head his column was made.

But as if knowing what was in store for him, Percy forced his way to the road to Charlestown, where the warships' guns would protect his men, and their boats would ferry them to Boston. It was his salvation. Clinton wrote him later: "I have always thought and said that had not your Grace decided at Cambridge to move by Charles Town instead of Roxbury, there would have been an end that day of British Government in America." The statement is extreme; but had Gage lost that day this more than third of his little army, the rest would have been in great danger.

Much was said by early American historians against the "barbarity" of the regulars, in burning houses at Lexington, and in killing non-combatants on the retreat. In spite of the exasperations given them by the Yankees in previous months, at Concord the troops behaved with great restraint. In Lexington houses were burned because they would give shelter to men wishing to attack the resting troops. As for non-combatants on the retreat, it is a fair suspicion that some were not so innocent after all, while others suffered for lingering too near troops who were angry and afraid because their comrades had been reported scalped. Anyone found in a house from which snipers had fired, and which the regulars broke into, had to take his chance. First among modern American historians, Mr. Harold Murdock cleared the British of this blame.

Steadily marching, it was almost dusk before the British came in sight of Charlestown, and of Boston across the water. At about the same time militia of Essex county, perhaps half their regiment, came to the field in a body. It was the last American opportunity. Had Heath, the American general, thrown them across the British path, and stopped the regulars while the pursuers closed in, there would have been a struggle of heroic proportions. But Heath had had his taste of the British cannon, and asked the Essex colonel for a conference. Percy marched on into Charlestown, across a narrow neck which his rear-guard and his field-pieces could hold. Night was falling as the boats began ferrying the wearied troops to Boston, but the consequences of Gage's expedition had not ended. From as far as messages had been carried that day, the militia were on their way to besiege Boston, and the Revolutionary war had begun.

Gage's attempt to destroy the stores had failed in its main object, for most of the munitions had been concealed. Smith's waste of time, both in beginning his march, and in quitting Concord, was almost disastrous. Behind breastworks his regulars could hold in check treble their own numbers; but marching in the open they were at the mercy of an irregular force, particularly since they disdained to use Indian tactics. The efforts of the troops were exhausting; and the

distances that they marched, with little food or rest, were very great. Had they held the bridge at Concord better, the final result would have been the same. Only the coming of the brigade saved the detachment; and had Percy turned toward Roxbury, or had he had another few miles to march, he could scarcely have saved himself. The courage of the troops was admirable; but discretion would have prevented the experiment. As it was, Gage was fortunate in getting his men back at all, while the success of the provincials emboldened them to besiege his army in Boston, with the most meagre equipment, yet with eventual success. The war might have begun some other way, and probably would have, sooner or later; but this way was a poor one. By teaching the Americans that the regulars were, after all, not so very formidable, Gage made a bad beginning of the war.

NOTE.—For lack of space, I have written this article without references. Those interested in the original documents will find them freely quoted in my *Day of Concord and Lexington*, and *General Gage's Informers*. Copies of these are in the British Museum. The chief British manuscript sources are: the reports of Smith and Percy to Gage, and Gage's own report, all in the Public Record Office (C.O.5/92); Pitcairn's and Laurie's reports to Gage, and Sutherland's letter, in two forms, all in the Clements' MSS.*; Barker's diary (*The British in Boston*†), Lister's narrative (*Concord Fight*), and the Mackenzie Diary,‡ all published by the Harvard University Press.

* In the Clements' Library, Ann Arbor, Michigan.

† Reproduced in full in Volume VII of the *Journal of the Society for Army Historical Research*, London, 1928.

‡ The portion of this diary which deals with the Concord fight was edited by me and published by the Harvard University Press in 1926, under the title, "A British Fusilier in Revolutionary Boston." The contemporary "Mackenzie Map" accompanying this article, is reproduced by kind permission of the Harvard University Press.

(This article has been reprinted from Volume XV, Spring, 1936, of the *Journal of the Society for Army Historical Research* with the kind permission of this Society and of the author.)

THE WORLD WAR IN HISTORY

A SURVEY OF SOURCE MATERIALS IN THE HOOVER WAR LIBRARY*

BY RALPH H. LUTZ

The year 1934 marked the twentieth anniversary of the inception of the Hoover War Library, for in 1914 with the outbreak of the World War, the idea of a war history collection at Stanford University began to take shape in the founder's mind. In September 1914 Mr. Hoover organized the Commission for Relief in Belgium, an organization which for four and a half years kept alive the Belgian population living under German occupation. The archives of this organization and the contemporaneous historical collection which he gathered during the war and at the period of the Paris Peace Conference formed the nucleus around which has been developed the present Hoover War Library—a library of books, pamphlets, Government documents, files of serials and newspapers, manuscripts, proclamations and posters, military maps and war film, which now overflows the space allotted to it on three stack floors of the Stanford University Library Building and continues to grow constantly.

Several brief general surveys of this Library have been published which have provided the military public and the investigator of World War military history with information concerning the economic, social, financial, political and military materials of unique value for critical studies of that period of the world's progress when the structures of our civilization were in the balance. In this paper the present writer plans to present the facilities which the Library offers for research in the general field of the military history of the great war.

The military materials in western European languages in the Library are divided into the following categories: governmental publications and documents of belligerents; general military periodicals; war-time camp and trench papers; regimental and divisional histories; miscellaneous military works including contemporary studies of military science; general staff maps and army maps; proclamations and posters including those pertaining to war loans, recruiting, relief, food conservation, occupied areas and zones of operations. Moreover there is deposited in the Library a vast amount of archive materials which has been placed in vaults because the donors have restricted its use by contemporary scholars.

Among the unique materials in the collection of governmental publications of a military character may be noted the official publications issued by belligerents in the administration of territory held under military occupation.

* A paper read by Dr. Lutz at the joint meeting of the American Historical Association and the American Military History Foundation at Chattanooga, December 28, 1935. First printed, with permission, in *Army Ordnance*, November-December, 1936.

These materials include propaganda as well as official decrees and regulations. A representative set in this collection is *Les Avis, Proclamations et Nouvelles de Guerre Allemands Affichés à Bruxelles*. A check of the *Serial Publications of Foreign Governments* reveals that various editions of the publications of German legislation for Belgian occupied territory are in a number of American libraries, but that the Hoover War Library is the only American collection having this valuable material *in extenso*. The Library's holdings also include official publications of military occupying powers in northeastern France, Poland, Estonia, Iraq, Latvia, Lithuania, Rumania, Serbia or Yugoslavia, and the former German colonies: Western Samoa, Cameroons, South West Africa, South Sea Islands, Nauru, and Ruanda-Urundi.

In the general collection of the official military publications of the principal belligerent powers are: publications of the Kriegsministerium of the Austro-Hungarian Monarchy; the documents of the Belgian Commission d'Enquête sur la Violation des Regles du Droit des Gens, des Lois et des Coutumes de la Guerre, *Les Armées, Françaises dans la Grande Guerre* of which thirty-three volumes have been published to date; documents of the German Kriegspresseamt, Reichsmilitärgericht, Reichsarchiv and Kriegsministerium; documents of the British Ministry of Munitions, the Committee of Imperial Defence, and publications of the War Office; publications of the Italian Corpo di Stato Maggiore; and finally an extensive collection of the official publications of the American Expeditionary Forces and of the American Forces in Germany.

As representative of the nongovernmental periodicals of a military character may be mentioned the files of *Militär Wochenblatt* and *Revue Militaire Française*. War-time military journals number over three hundred files, notably *Gazette des Ardennes*, *Kriegszeitung der 9. Armée*, and *Bulletin des Armées de la République*. These journals often supplement such official and rare publications as *Verordnungsblatt für das General Gouvernement Warschau* or the French Government's *Journal Officiel des Territoires Occupés*.

For a detailed study of military operations the histories of regiments and divisions, which were in line or in reserve, are of distinct value. The Library contains approximately one hundred twenty-five British, one hundred fifty French, five hundred German, one hundred fifty-five American, one hundred Russian and fifty miscellaneous histories. Many of these have already been included in authoritative special bibliographies or have been cited by military historians in special works. Supplementing these histories is a collection of nine thousand titles of miscellaneous military works.

To list representative titles from this collection would be to name the principal military historians and authors of memoirs. It has been the aim of the Library to cover every phase of World War military operations. For certain campaigns relief models have been acquired as aids to research.

The collection of military maps numbers over five thousand items, including sets of general staff maps from the major belligerent powers. These sets have been augmented by gifts from twenty private collectors who have however in general restricted the use of their collections by scholars.

The Library's collection of military propaganda is more extensive than the great European collections at the Bibliothèque et Musée de la Guerre at the Chateau de Vincennes near Paris, the Weltkriegsbücherei at Schloss Rosenstein near Stuttgart or the Imperial War Museum and Library at Bedlam, London. Its materials have been surveyed in recent publications. The projected study of World War proclamations and posters by intelligence officers of the present German Army emphasizes the importance of military propaganda not only in occupied areas but in the general conduct of modern war.

In addition to the military materials in western European languages in the Hoover War Library, there is also an extensive collection in Slavic languages. This section of the Library is rich in Polish, Russian, Czech and Serbian works. Two background collections cover the wars of Imperial Russia during the nineteenth century and the Russo-Japanese War.

The main Russian military collection is concerned with the 1914-1917 campaigns, the revolution and the period of intervention and civil war. It is divided into the following categories: military art and science; military drill and education; strategy and tactics; regimental and divisional histories; aviation; the Red Army; defense of the coast ways and communications; military journals and newspapers; and miscellaneous military works. Representative works in the first category are those of Golovine, Kaminski, Dlugowski, and Ganov. In the second group may be mentioned Kruglikov's texts written in 1917 and the study of Soviet military schools from 1918 to 1922 by Avinovitskii. Kakurin's strategical sketch of the civil war, Drabkin's lessons of the civil war and Karakhanin's military geography of the U.S.S.R. are representative works in the strategic group. Studies of the Russian military campaigns, which have not been translated into English include works concerning the 15th army corps in East Prussia; the retreat from Galicia in 1915; the break of the IX army in 1916; the destruction of the 20th corps in 1915; and the activities of the secondary troops during the World War.

The definitive study of the civil war is *Grazhdanskaiavoina* 1918-1921, published in Moscow, 1928. Trotsky's documents and orders as commander in chief of the Red Army have been printed in five volumes. Voroshilov has written an interesting study of the general problem of the defense of Soviet Russia, while numerous military writers have covered all phases of the campaigns of the civil war.

No Russian military collection would be complete without files of Proletarskaria Revoliutsiia, and Arkhiv Russkoi Revoliutsiia which contain a

great number of personal narratives by commanders of the Red Army. The Hoover War Library possesses however, complete files of more than a score of other military journals, which are concerned with all phases of Russian military history from the outbreak of the World War until the present European crisis.

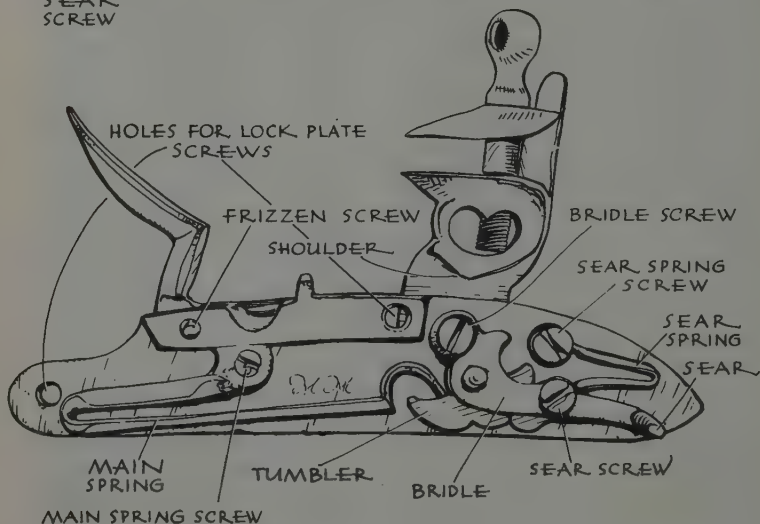
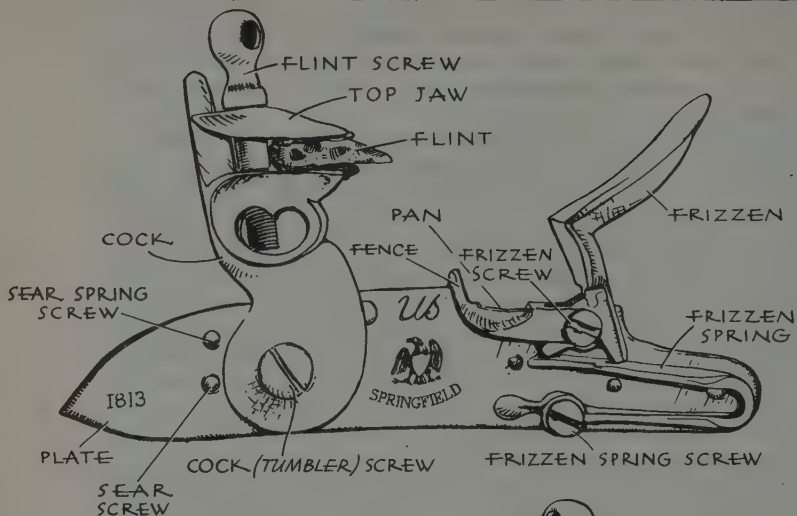
A considerable amount of original military source material has been received by the Library with specific restrictions as to its use by scholars. Eleven archives of former army commanders will become available for research during the next decade. As soon as these restrictions expire, the Library will publish descriptions of these collections.

Certain manuscript materials in this restricted group may however be mentioned at this time. Among these are: Supreme War Council documents; military documents of the Allied and Associated Powers for the Paris Peace Conference period; documents of the American Expeditionary Forces and of the American Forces in Germany; the Dorten documents on the separatist movement in the Rhineland; minutes and documents of the Inter-Allied Munitions Council and of the Inter-Allied Rhineland Commission; the Golovine collection of materials concerning the Imperial Russian Army; and the Library's collection of American reports on European military establishments for 1919-1920. In the group are also the papers of the following generals: Barsoff, Bermont, Budberg, Gourko, Heroys, Kappel, Kolchak, Kornilov, Krasnov, Mamontov, Martos, E. K. Miller, Samsonov, and Shinsky.

By means of the Library's publications, of which ten volumes have now been published, a number of important military documents in these collections are being made available to all other libraries. Number 10 of this series is an English translation of the testimony of Kolchak and other Siberian materials. This important source for the history of the Russian civil war contains Kolchak's answers to questions relating to the Japanese War, the World War, the revolution of 1917, and finally his organization of the short-lived anti-Bolshevik territory in Siberia. In Hoover War Library Publication Number 4 entitled "The Causes of the German Collapse in 1918" are given Germany's own answers to the following questions raised after the 1918 revolt: Were we defeated in battle? Did those at home stab the fighting army in the back with the dagger of revolution? Why did the navy mutiny? Did the Pan-Germans and the Fatherland Party prolong the war for selfish purposes?

An annotated bibliography of the military materials in the Hoover War Library is now in process of formation and will be published in the bibliographical series of the Library. All titles of original source materials concerning American military history will be furnished to the American Military History Foundation for inclusion in its directory of original sources.

It is apparent, the present writer trusts, that the primary objective of the Library is the development of research concerning the causes, conduct and results of the World War.



THE LOCK

GEORGE E. EMMETT

UNITED STATES MILITARY SHOULDER ARMS, 1795-1935

BY JAMES E. HICKS

1. *The Smoothbore Flintlock as a Military Arm.*

Before commencing this series of notes on the various models of our service shoulder weapons, it is probably advisable, even at the risk of becoming too elementary, to devote a few words to the general operation of the flintlock or firelock, as it was indifferently called at this period. The discussion will be restricted to the smoothbore musket, for the rifle did not become a service arm until some years later.

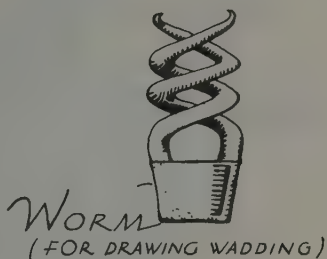
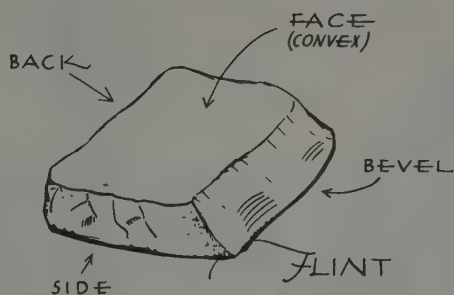
During the eighteenth century, flint and steel was the universal agency for firing small arms. The flint and steel was carried as part of the lock—the heart of any weapon. Its principal parts can be seen in the accompanying illustration. The action of the lock is obvious. The cock (or hammer) may rest in three positions, down, half-cock, and full-cock, but it can be released by a pull of the trigger only when at full-cock. The cock holds a piece of flint between jaws which are tightened by a screw. Immediately in front of the cock stands the frizzen (shown thrown open in the diagram) which when closed covers a depression called the pan. From the pan a small vent leads into the chamber. Ignition of the charge in the chamber is accomplished by allowing the cock to fall smartly forward against and down the face of the frizzen, forcing it open. The resulting shower of sparks caused by the contact of flint on steel ignites the priming powder which has been placed in the pan, the flash of which, passing through the vent into the chamber, ignites the charge.

The most important item, naturally, was the flint. Its shape, the names of all its sides together with their approximate dimensions, are given in the following illustration. There were three sizes of flints: the largest for muskets, the next for rifles and the smallest for pistols. There were many grades of flints but the best were of a translucent appearance, light yellow or brownish in color and were generally obtained from either England or France. In England especially the art of selecting and shaping (called knapping) flints was developed to a high degree. (1) Black flints were the poorest and were used only when the supply of others failed. Flints were packed for military use in kegs or half barrels. The two most accepted means of holding the flint in the jaws of the cock were either with a properly shaped lead shield or with a piece of buck skin. Cloth was never employed, for it was very apt to take fire from the flash of the powder in the pan. While a good flint was usable for about fifty or sixty fires, in the military service flints were issued to the troops in the ratio of one flint to twenty cartridges. Dummy flints, made of wood and called "snappers," were used during training exercises to save the real ones. (2)

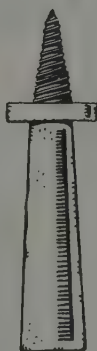
All of the weapons prior to 1820 were made by hand and the parts were not interchangeable. The system of manufacturing interchangeable parts for firearms was not introduced until Captain John H. Hall of Yarmouth, Maine went to the Harper's Ferry Armory in 1819. He had been appointed Assistant Armorer with the chief duty of supervising the manufacture of his patented breechloading, flintlock rifle. The smoothbore muskets first produced at our armories had a universal calibre of .69 inch. Inaccuracies of manufacture and the wear of service caused slight variations from this figure.

At the period in which this series commences there were two general ways in which ammunition was carried and loaded. The standard military method consisted of the use of a cartridge, a small paper package into which was wrapped the bullet and a charge of powder. (3) Cartridges normally were carried by the soldier in a leather pouch, lined with tin, or containing a wooden block, bored with holes. This was suspended from a belt over the left shoulder and invariably rested on the rear of the right hip. The American pouches in common use at this time held at least 24 rounds. Cartridges were often packed in packages of 10 each or in barrels containing 2100. The paper used for cartridges was of a heavy texture, usually grey or greyish-blue in color. (4) From one sheet of it were cut six patterns into which the powder and ball were rolled, enveloped and tied. Troops normally were issued these cartridges intact, but sometimes it became necessary to make them up in the field and it was not uncommon, during the Revolution, for soldiers to be forced to cast their own bullets as well. (5) I do not believe that hand bullet moulds were issued regularly at this time, but they do appear on old ordnance reports as equipment on hand at various arsenals. (6)

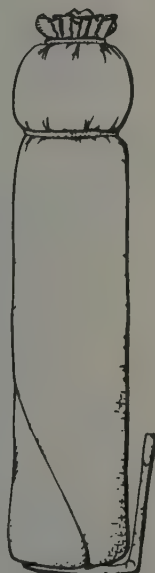
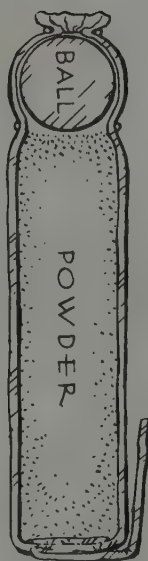
The bullet itself was spherical in shape and made of lead. The powder was reasonably coarse, approximately what would be called today grade FG or perhaps FFG. The quantity of smoke produced by a single shot was prodigious. In addition, just before the discharge, a small cloud of smoke flashed up from the pan, where the priming had burned, and a jet of flame flicked out of the touch hole. This is what gave the soldiers of the period such blackened faces and burnt eyebrows. Dry throats and swollen or cracked lips came from the saltpetre as a result of biting the cartridges. The recoil was heavy and the barrel usually became so hot after a few shots that loading was a painful process. Yet most soldiers preferred the musket to the rifle because of the comparative rapidity and ease with which it could be loaded. In its accuracy the smoothbore was decidedly limited. For this reason there were only the most rudimentary sights, a small knob on the front of the barrel sufficing. Yet in the close range volley firing, then so popular, this made but little difference. Rarely was the soldier required to fire at ranges over 100 yards. Of course, the shock power of the musket bullet was tremendous. A hit almost anywhere knocked a man down. This to some extent compensated for the lack of accuracy. (7)



SCREWS
(FOR DRAWING
BALLS)



POMMEL



TOTAL WEIGHT
WEIGHT OF BALL
WEIGHT OF POWDER

528 grains
- 433 grains
75 grains

CARTRIDGE

PICK

GEORGE FRAY.

According to regulation, recruits were trained to fire and reload in twelve counts. (8) These regulations will be given verbatim as they contain several points well worth noting. (9) They commence with the weapon loaded and at half-cock, the way it was carried in the field.

THE MANUAL EXERCISE

I. *Poise—Firelock!* Two motions.

1st. With your left hand turn the firelock briskly, bringing the lock to the front, at the same instant seize it with the right hand just below the lock, keeping the piece perpendicular.

2d. With a quick motion bring up the firelock from the shoulder directly before the face, and seize it with the left hand just above the lock, so that the little finger may rest upon the feather spring, and the thumb lie on the stock; the left hand must be of an equal height with the eyes.

II. *Cock—Firelock!* Two motions.

1st. Turn the barrel opposite to your face, and place your thumb upon the cock, raising the elbow square at this motion.

2d. Cock the firelock by drawing down your elbow, immediately placing your thumb upon the breech-pin, and the fingers under the guard.

III. *Take—Aim!* One motion.

Step back about six inches with the right foot, bringing the left toe to the front; at the same time drop the muzzle, and bring up the butt end of the firelock against your right shoulder; place the left hand forward on the swell of the stock, and the forefinger of the right hand before the trigger; sinking the muzzle a little below a level, and with the right eye looking along the barrel. (10)

IV. *Fire!* One motion.

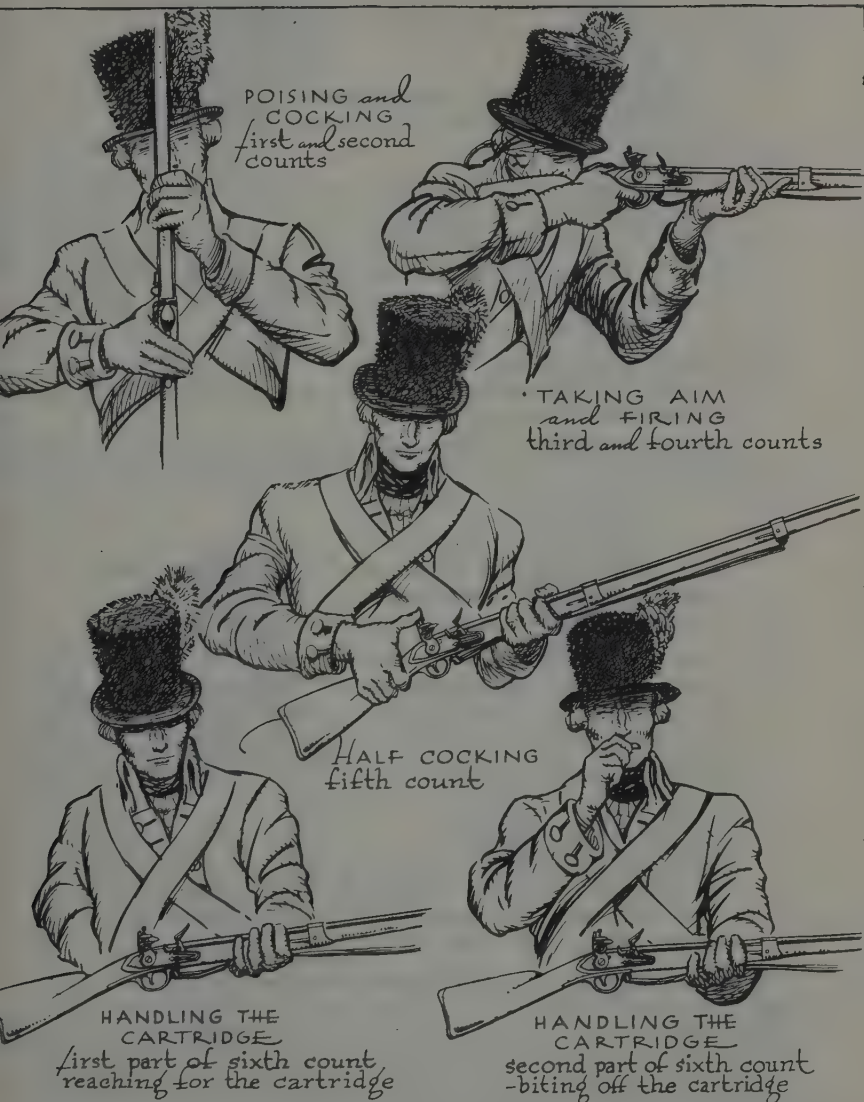
Pull the trigger briskly, and immediately after bringing up the right foot, come to the priming position, placing the heels even, with the right toe pointing to the right, the lock opposite the right breast, the muzzle directly to the front, and as high as the hat, the left hand just forward of the feather-spring, holding the piece firm and steady; and at the same time seize the cock with the fore-finger and thumb of the right hand, the back of the hand turned up. (11)

V. *Half-Cock—Firelock!* One motion.

Half bend the cock briskly, bringing down the elbow to the butt of the firelock.

VI. *Handle—Cartridge!* One motion.

Bring your right hand short round to your pouch, slapping it hard, seize the cartridge, and bring it with a quick motion to your mouth,



FEDERER FRANK

bite the top off down to the powder, covering it instantly with your thumb, and bring the hand as low as the chin, with the elbow down.

VII. *Prime! One motion.*

Shake the powder into the pan, and covering the cartridge again, place the three last fingers behind the hammer, with the elbow up.

VIII. *Shut—Pan! Two motions.*

1st. Shut your pan briskly, bringing down the elbow to the butt of the firelock, holding the cartridge fast in your hand.

2d. Turn the piece nimbly round before you to the loading position, with the lock to the front, and the muzzle at the height of the chin, bringing the right hand up under the muzzle; both feet being kept fast in this motion. (12)

IX. *Charge with Cartridge! Two motions.*

1st. Turn up your hand and put the cartridge into the muzzle, shaking the powder into the barrel. (13)

2d. Turning the stock a little towards you place your right hand closed, with a quick and strong motion, upon the butt of the rammer, the thumb upward, and the elbow down.

X. *Draw—Rammer! Two motions.*

1st. Draw your rammer with a quick motion half out, seizing it instantly at the muzzle back-handed.

2d. Draw it quite out, turn it, and enter it into the muzzle.

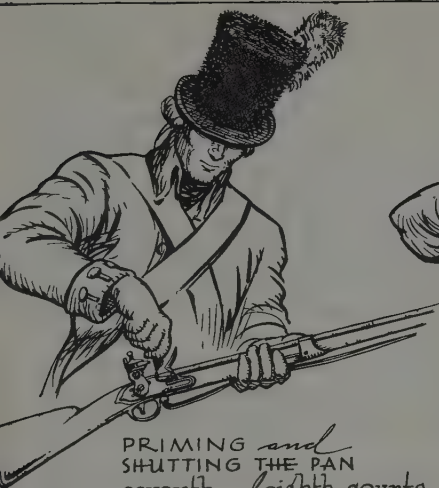
XI. *Ram Down—Cartridge! One motion.*

Ram the cartridge well down the barrel, and, instantly recovering and seizing the rammer back-handed by the middle, draw it quite out, turn it, and enter it as far as the lower pipe, placing at the same time the edge of the hand on the butt end of the rammer, with the finger extended.

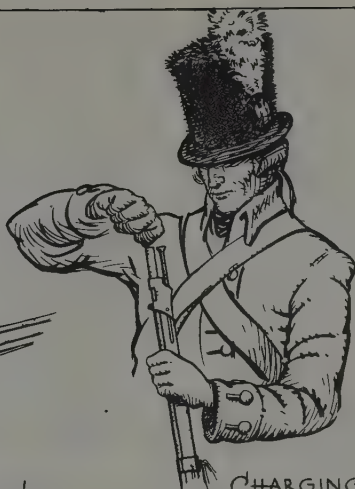
XII. *Return—Rammer! One motion.*

Thrust the rammer home, and instantly bring up the piece with the left hand to the shoulder, seizing it at the same time with the right hand under the cock, keeping the left hand at the swell, and turning the body square to the front. (14)

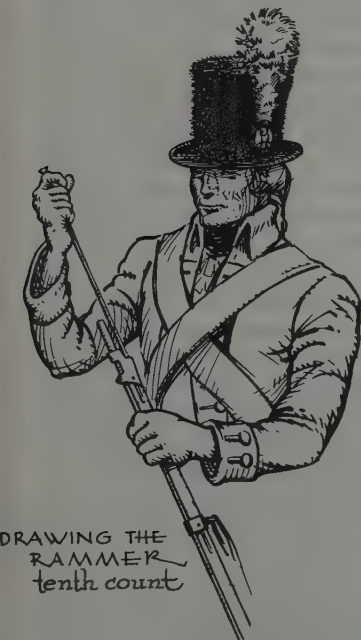
If troops were not fortunate enough to have cartridges issued to them, they were forced to depend on the slower and more uncertain method of carrying the powder and ball separately. The former was kept loose in a receptacle, generally a powder horn, which was attached to a strap slung over the left shoulder. Sometimes two horns were carried, a smaller one for a finer-grained powder for priming. The bullets were carried loose, either in a pocket or in a leather pouch. This was the normal equipment of the backwoodsman and of most who fired the rifle.



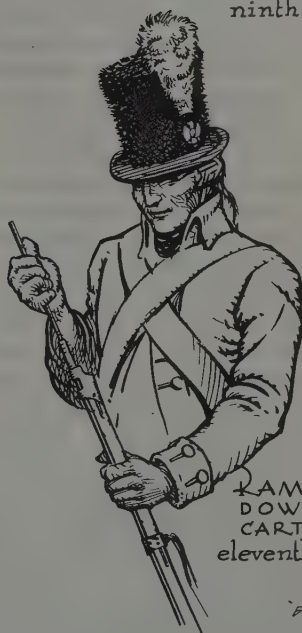
PRIMING and
SHUTTING THE PAN
seventh and eighth counts



CHARGING WITH
CARTRIDGE
ninth count



DRAWING THE
RAMMER
tenth count



RAMMING
DOWN THE
CARTRIDGE
eleventh count

FEDEREE FRAY

The method of loading under these conditions naturally varied considerably from the regulations given above. After the gun had been fired and half-cocked it was rested in the crook of the left arm. A bullet was removed from the pouch and placed in the center of the cupped palm of the left hand. With the right hand, powder was poured into the pan for priming, and, into the left hand, enough to cover the bullet, this being generally accepted as the correct charge. (15) The frizzen was then closed and the gun lowered to the ground as in the regulation position for charging. The powder in the left hand was slipped into the muzzle. Following this, a small piece of cloth or thin leather called a patch was laid over the muzzle. In the center of this patch was placed the bullet, both being shoved into the barrel with the thumb of the right hand and then rammed home. Lacking patches, wads of cloth, paper or even moss were used. These served to hold the ball tightly in the barrel. At times the bullet was dropped in loose and the gun was kept in a vertical position. (16) Naturally this method required no little experience to properly gauge the charge and to fit the ball. At best it was slower than when the cartridge was used.

The chances for misfire and accident with either method of loading were legion. Soldiers were continually being cautioned to load with coolness, not to spill the powder in priming, not to drop the cartridges or to hit the men on either side with the ramrod. In spite of these cautions continuous fire for longer than five minutes was exceptional. Of the French musket, upon which our own was modelled, it was said that one misfire might be expected in every nine shots, and one hang-fire in every eighteen. (17) To make matters worse, it was not uncommon during the noise and confusion of a battle for a weapon to misfire without the soldier realizing it, and for him, in his excitement, to continue to load, not merely twice, but even ten or a dozen times. (18) These misfires were caused frequently by worn or damaged flints or by flints of poor quality. Damp powder also often was to blame, a fact which made fighting in the rain or even in fog almost out of the question. A stopper or "tompion" was placed in the muzzle when it became necessary to march in wet weather. Care had to be taken when loading even in a light wind to prevent the priming from blowing out of the pan. Again, if it stayed in, it often became greasy and did not ignite, or the vent leading into the chamber became plugged up. To clear this hole, soldiers wore, suspended from a belt or button on the right side of the chest, a small brass "pick," together with a little hair brush for keeping the pan, flint and frizzen clean. (19) Finally, the barrel had a habit of fouling, and, though this did not much affect the loading, it did tend to reduce the already slight accuracy of the musket.

In the face of these difficulties, and of the complications of loading, it seems little short of miraculous that anything like a regular, sustained fire could be achieved. Yet, by use of the cartridge, the flintlock could be fired by an experienced soldier at the rate of from three to four shots a minute. (20)

This, of course, was exceptional. General Maltby in his regulations, written in 1811, (21) admits that "undisciplined troops would not fire *regularly* more than once in a minute". This, I believe, was about the standard, and few officers could hope for better.

As in all other phases of military science, it took long and constant training to develop effective firing units. This training was seldom possible in our early armies, and we were indeed fortunate that the majority of our recruits came to us partially prepared. From childhood they had been trained in arms and, though they had developed many individual peculiarities, they had at least conquered the awkward stage, a fact which gave them a certain superiority over the enemy in this one respect, even though they may have lacked it in all others.

NOTES

A list of authorities consulted in the preparation of this series will be annexed to the last number. Space, unfortunately, does not permit complete documentation of each article.

- (1) An interesting account of gun-flint manufacture in England is included in Sir John Evans, *Ancient Stone Implements* (London, 1897).
- (2) Also called "drivers." The common habit among soldiers of needlessly snapping the cock seriously shortened the lift of a flint and was unquestionably the cause of many misfires. Frequent reference is made in orderly books of the American Revolution to this practice and of the efforts made to curb it. General Greene, in 1776, ordered offenders punished by a confinement of two days and nights on bread and water. *Long Island Historical Society, Memoirs*, III, Part II, 14.
- (3) In 1776 Washington advocated that from four to eight buckshot be included with the ball. This was for close range firing from behind breastworks. Worthington Chauncey Ford, editor, *The Writings of George Washington*, IV, 194. Issues of "buck and ball" continued for many years, even into the Civil War.
- (4) Apparently also brown. *The British Military Library*, I (1799), 281. Cartridges were sometimes wrapped in flannel. William Duane, *A Military Dictionary* (Philadelphia, 1810), p. 85. Ball cartridges should be made of a different colored paper than blanks. *Loc. cit.*
- (5) *Diary of David How* (Cambridge, Mass., 1865), pp. 5, 30. See also *Orderly Book of General Andrew Lewis* (Richmond, 1860), item: April 19, 1776; and *Orderly Book of the Northern Army at Ticonderoga* (Munsell's Historical Series, No. 3, Albany, 1859), p. 24.
- (6) For instance see the return of military stores at Schuylkill Arsenal of February 15, 1805, included in *Letter from the Secretary of War . . .* (Washington, 1805).

- (7) Charles W. Sawyer, *Firearms in American History*, I, 103. Also see "Journal of Aaron Wright," *Historical Magazine*, July, 1862, p. 210, for an interesting account of the power behind a musket ball.
- (8) In later regulations this training was followed by the more advanced exercises of "loading in quick time" and "loading in the quickest time." Recruits trained with dummy cartridges and dummy flints, both made of wood. A brief discussion of earlier manuals (1757 to 1779) and the flintlock in general is given in Charles Knowles Bolton, *The Private Soldier under Washington*, Chap. iv.
- (9) The instructions given are taken from *Regulations for the Order and Discipline of the troops of the United States* (Philadelphia, 1779). These commands do not vary in the reprints through 1807. Interesting it is to observe that, though drill manuals continued for many years to specify the loading in twelve commands, rarely do two editions agree on the numbering or wording of the various counts. Even more interesting is the fact that the use of twelve commands seems almost a sacred precedent. In the following thirty years or more the authors of drill regulations added new steps, combined old ones and generally grew more verbose, but never varied from the traditional number.
- (10) Note that the gun was supposed to be lowered from the "poise" position, at which it was cocked, to the position of taking aim. Recruits were warned against the "unsoldier-like" habit of raising the muzzle, presumably after it had been cocked in a position similar to count V. Note also that the soldier was not supposed to sight his piece but to merely point it. However, the Americans usually did take a true aim. An eyewitness of Bunker Hill attributes the effectiveness of their fire to the fact that they actually "took sight."
- (11) It is peculiar that the soldier was cautioned to "pull the trigger briskly," a complete reversal of our present day regulations. This dogma continued to be laid down for many years, and by 1826 we find it emphasized into "jerk the trigger smartly." Presumably this was to overcome sticky mechanism, but perhaps the idea was to prevent the soldier from taking too long an aim.
- (12) Sometimes the musket was struck by the hand to jar powder into the touch hole.
- (13) Of course, the bullet was shoved into the muzzle after the powder. Frequently the soldier crumpled the paper around the bullet to cause it to fit more snugly.

- (14) The ramrod was not always returned after charging. It was sometimes held in the left hand or stuck in the ground near the feet. Of course, it was occasionally left in the gun by accident and fired out with the charge. Numbers have been found embedded in trees after an engagement.
- (15) A measuring device on the powder horn, designed to give the correct charge, was not introduced until early in the nineteenth century.
- (16) Such were called "running balls". This was a method of temporary charging used when ammunition was scarce or for short guard duty which required unloading afterwards. See *Massachusetts Historical Society Proceedings*, October, 1876, p. 94; June, 1875, p. 90.
- (17) Marquis Georges de Chambray, "Mémoire sur le Fusil de Guerre," *Oeuvres* (Paris, 1840), V, 292.
- (18) This mistake usually ended in a burst barrel and a dead soldier. Other serious accidents have been reported, such as the explosion of uncorked powder horns, hang-fires after guns had been lowered from the shoulder, and the results of the common, but then more understandable error of cleaning loaded muskets.
- (19) These were standard parts of the equipment of a soldier, but appear at this period to have been issued to but half of the men. An inspection return of Captain Alpheus Sherman's company of the 41st U. S. Infantry for May 2, 1815 shows 80 muskets, complete, but only 38 "Brushes & Pricks". In another company it runs 87 to 45, etc. (MS Returns, The National Archives). The picks or "pickers" were often carried in the knapsack or cartridge box rather than on the chest. "Worms" and "screws" were issued to be used in extracting a bullet when the gun had to be unloaded without firing.
- (20) This may appear to be an exaggeration, but most of the manuals refer to such a rate as the ultimate in training. The *absolute* rapidity of the Prussian (unaimed) fire was six shots a minute. M. Thierbach, *Die Geschichtliche Entwicklung der Handfeuerwaffen* (Dresden, 1886), p. 92. The rate of fire of the British Brown Bess was, on the average, about two shots per minute. For an interesting discussion of this see H. W. L. Hime, *Stray Military Papers*, Chap. i.
- (21) Isaac Maltby, *The Elements of War* (Boston, 1813).

BOOK REVIEWS AND NOTICES

A History of the United States Navy, by Dudley W. Knox. (New York: G. P. Putnam's Sons. 1936. Pp. 481. \$5.00.)

The history of the United States navy has been one of few fleet actions but many hero tales, and most previous books on the subject have leaned heavily on the hero tales. Captain Knox, without neglecting the more colorful aspects, has undertaken a serious history, with particular attention to the political and economic backgrounds of various events which have resulted in naval action.

It is becoming increasingly difficult to compress so broad a subject within the limits of a single volume. Fortunately, this has been done without neglecting important naval conflicts, even when their story is familiar. For example, the oft-told tale of the *Monitor* and *Merrimac* is approached with a freshness of view that is surprising, resulting in one of the best accounts of the episode ever written. There is no slighting of the famous frigate conflicts of the 1812 period, yet room has been found for much closer attention to the effect of British sea power on that conflict than it is usually accorded. Similarly the naval aspects of the Mexican War, a much neglected subject, are treated with fullness.

More familiar ground is covered adequately in the naval details of the Civil and Spanish-American wars. There is a comprehensive account of naval operations during the World War, particularly of those combating Germany's submarine effort.

Less minute treatment is given to the periods between wars. Even so Captain Knox uncovers a number of episodes of these periods little-known to the general public, and, perhaps even to naval historians, which would, nevertheless, only be discussed in a book of this nature. The only answer to this problem, of course, is that future naval histories must be spread out into more volumes.

In comparison with the classic history of the army by W. A. Ganoe, one misses principally the details of organization, of training methods, and some discussion of the character of naval life at various periods. A description of the various types of ships, now and in the past, and of their purposes might be appreciated by the non-technical reader.

These minor criticisms, however, of what has been left out give way to admiration for what has been put into the book, as one contemplates this useful summation and guide to a subject grown almost encyclopaedic in its nature.

D. R.

Togo and the Rise of Japanese Sea Power, by Edwin A. Falk (New York, Toronto: Longmans, Green & Company. 1936. Pp. 508. \$4.00.)

Tsushima, by A. Novikoff-Priboy, translated from the Russian by Eden and Cedar Paul (New York: Alfred A. Knopf. 1937. Pp. 425. \$3.50.)

It is improbable that any biography in English will supercede Mr. Falk's *Togo*. Not only is the subject handled competently, but also the story is told in an interesting fashion.

Togo's lifetime covers almost the entire history of modern Japan. He was five years old when Commodore Perry opened the "Hermit Nation" to world commerce. As a youth he was present at the bombardment of Kagoshima by The British, an act that turned Japan's attention to sea power, and resulted in sending a number of students, among them Togo, to England to study naval affairs. He commanded a ship at Honolulu during the revolution when Japan hoped to add the Hawaiian Islands to the expanding empire. His part in the Japan-China war was important; he experienced the Boxer uprising; and he was in supreme command of the navy during the Russo-Japanese war. He lived to see the seizing of Kiaochow during the World War, the taking of Manchukuo, and the demand for naval parity in 1933. Mr. Falk has made this biography a history of the Japanese navy. Necessary technical details are included, some of them in footnotes.

Togo won the greatest naval victory of modern time, the battle of Tsushima, in which Russia's fleet was destroyed, captured, or interned with a loss of 4,830 lives, while only 117 Japanese were killed. Mr. Falk devotes sixty-eight pages to this decisive action, tracing fleet movements in detail. The Russian side of it is told vividly in the volume by Mr. Novikoff-Priboy.

The Russian author was a sailor aboard the *Oryol*, one of the capital ships in Rozhstvensky's fleet. He spent much time during his captivity in Japan collecting the stories of survivors, so that he is able to describe the sequence of events on each individual ship of the ill-fated squadron. The long delay in publication is accounted for by many vicissitudes suffered by these documents, only recently recovered.

Discounting obvious communistic propaganda, one cannot doubt that inefficiency, incapacity and gross stupidity—even cowardice, in some cases—marked the conduct of the Russian fleet. Mutinies characterized the voyage; they were quelled with ruthlessness and injustice. Maneuvers and target practice showed lack of elementary training. Rozhstvensky is described as a foulmouthed tyrant whose abuse was so virulent that even his staff-officers feared to approach him. He held no conferences, took no advice, drew up no plan of battle, and in action issued no orders. He made no effort to attack the Japanese scouting cruisers and refused to permit an attempt to block

their wireless messages. His orders were to follow the leader—with the result that no one ever will know who commanded the Russian fleet in some stages of the action. After the flagship was forced out of line, the *Alexander III* led for a time, but was sunk with no survivors. Later the *Borodino* led; its one survivor tells of a search for someone to command the ship when he could find only one man on deck alive. Yet this ship could not turn out of line—it commanded the fleet until it went to the bottom.

Tsushima is a story of horrors that perhaps has not been exceeded in all war literature. The men who fell into the machinery when the *Oslyabya* turned over probably were lucky. Some 200 men were sealed in her hold, where water might not have reached them until long after the ship rested on the bottom. Fire and ammunition explosions added to the butchery of bursting shells and flying ironwork.

D. R.

Historical Arms and Armor. (New York: The Metropolitan Museum of Art. 1935. 25c.)

Stephen V. Grancsay, Curator of Armor at the Metropolitan Museum of Art, has prepared this beautiful brochure containing 21 halftone plates of classical arms and armor. As the author states, "Each of the objects shown in this picture book is a potential teacher of history." Beginning with the etched and gilded harness which belonged to Galiot de Genouilhac (1465-1546), Grand Master of Artillery of France—and probably not unlike the one he wore at the ceremonies held on the Field of the Cloth of Gold, the illustrations carry the reader through the pomp and glory of a colorful age by presenting the arms and armor of historic personages. The series concludes with the highly embellished partisan of the state guard of Maurice of Nassau, Prince of Orange (1567-1625) and the fauchard of the state guard of Cardinal Camillo Borghese (1600). In its few pages this little brochure contains a wealth of historic objectivity which should appeal to every lover of arms and armor.

L. A. C.

Das Ehrenkleid des Soldaten, by Martin Lezius. (Berlin: Ullstein. 1936.)

This unusual volume presents an outline of the history and tradition of European military dress from the sixteenth century to today. There are 200 pages of text in German with 70 black and white illustrations and 265 splendid full-color prints. Several of these show American subjects. The book is too general to be of great assistance in costume research, but when considered in the light of a review of the work of the great military illustrators it ranks high. The volume sells in this country for about \$9.00, a startling fact considering what the cost of such color printing would be here.

F.P.T.

The War in Outline, 1914-1918, by Liddell Hart. (New York: Random House. 1936. Pp. 285. \$2.00.)

This book, advertised as "a complete history of the war in 285 pages" is in the words of its author "an attempt to let the facts tell the story as plainly as possible, without the embroidery of criticism and argument." It would, however, be as impossible for Liddell Hart to write a mere chronology of events as it would be dull for anyone to read it. Instead there is presented a brief discussion of the art of war, as exemplified in the last conflict, written in such a way that the average citizen can understand it.

Liddell Hart's somewhat longer account of the World War, which has appeared, in several editions, under two different titles, is deservedly popular as the best one-volume account thus far published. This briefer work, however, is by no means to be considered the outline of an outline. While in spots it appears to reproduce some of the language of the older book, it is in fact an entirely new creation, in which an attempt is made to evaluate the military lessons of the War as they are important to those who must pay their cost—all of us.

Although the great war leaders—Foch, Joffre, Petain, Haig, Kitchener, Ludendorff, Hindenburg, and Pershing—appear in somewhat poor light, they are judged largely from their own words, at the time, and not by subsequent criticism or apology. At the same time the latest finding in every case is presented. But there is less concern with individuals than with the course of events. A suggestive thought is offered that generals, trained in normal methods of military study, are little more qualified for the larger field of war strategy than certain civilians with broader outlook and background. This suggestion will require more consideration than is given it here, and it will be recalled that few American civilian generals achieved marked success.

However, all of this is given without argumentation to obscure the general account; which is so presented as to appeal to those who want to learn in as short time as possible what the war was all about. D. R.

One Hundred and Three Fights and Scrimmages: The Story of General Reuben F. Bernard, by Don Russell (Washington: United States Cavalry Association. 1936. Pp. 173. \$1.00).

This is a splendid biography of a cavalry soldier and troop commander in the Modoc, Bannock, and Sheepeater campaigns, the Civil War campaign in New Mexico, several expeditions against the Apaches, and other fights between 1856 and 1881, totalling to the 103 indicated in the title. The edition of 400 copies has been sold out save for a few copies obtainable from *Winners of the West*, 908 Edmond Street, St. Joseph, Missouri.

R.D. H.-S.

From Harlem to the Rhine; The Story of New York's Colored Volunteers, by Arthur W. Little. (New York: Covici, Friede. 1936. Pp. 382. \$3.00.)

The 369th Regiment of United States Infantry has several claims to distinction. It was the only National Guard regiment to serve in France under its original state designation—in fact, it was the 15th New York Infantry until actually on the firing line. Throughout its entire service it was attached to French units, never being assigned to an organized American division. It was under fire for 191 days, suffered 1,500 casualties, never lost a foot of ground, never lost a prisoner, and took every objective save one, losing that one only through failure of artillery support. Here, certainly, is a regimental history which deserves a place in every World War library. Its story is well told by General Little, who commanded a battalion during most of the action. His account of the famous "Battle of Henry Johnson," wherein one Negro private routed a German patrol of possibly 24 men, is one of the real hero tales of the A.E.F. In the Meuse-Argonne this organization proved that, under competent leadership, Negro soldiers can fight. D. R.

Military Posts and Camps in Oklahoma, by William Brown Morrison. (Oklahoma City: Harlow Publishing Corporation. 1936, Pp. 180.)

Oklahoma has had some twenty-five more or less permanent forts or camps. When the tribes of the south and east were first being moved into the Old Indian Territory such posts as Fort Gibson and Fort Towson were established to guard against inter-tribal warfare. During the Civil War both sides attempted to make use of the Indians and several more were established. The most famous posts, perhaps, were those established during the Indian wars on the plains. Two of these remain in service: Fort Sill, now occupied by the Field Artillery School, one of the largest of army establishments; and Fort Reno.

Considerable lack of imagination is evidenced in the naming of the posts. Four posts or camps were named for Gen. Matthew Arbuckle. One never was named, being, for four years, called simply "Cantonment;" another was Camp Supply. Just over the border is Fort Smith.

Professor Morrison's account of these old posts is so presented as to outline the history of Oklahoma, and include many little-known incidents. D. R.

Die Deutsche Wehrmacht. (Special issue of the *Illustrierte Zeitung*, November, 1936. Pp. 324, profusely illustrated. \$1.25.)

This special edition of the well known German weekly, devoted exclusively to the German armed forces, is one of the most remarkable magazine offerings of the day. It contains photographs touching on each phase of military, naval and air service work, eleven full pages in color and over seventy pages of text. Of great interest are the advertisements, which range in subject from aircraft to beer and apparently include every product supplied the army.

F.P.T.

NOTES AND QUERIES

PETERSBURG NATIONAL MILITARY PARK: AN ORDNANCE MUSEUM. This extensive park was established by Act of Congress, July 3, 1926, to commemorate the military operations around Petersburg in 1864 and 1865. To the student of early ordnance the campaign is of particular interest since it brought into use probably more varied types of cannon than any other campaign of the Civil War. Many of these old weapons which spoke so determinedly for the North or South have long since disappeared, victims of the scrap heap or the city park. To preserve such as remain and can be collected, a museum has been created at Petersburg under the control of the National Park Service of the Department of the Interior. Ultimately this museum will contain as nearly complete a collection of Civil War ordnance as it is possible to bring together.

Several organizations and individuals other than the National Park Service and its personnel are assisting in this work, chiefly the Army Ordnance Association. From its membership there has been formed a committee to direct the task of locating artillery pieces to be used in this collection. The Foundation has pledged its assistance in furthering the work of this committee. A list is appended giving the number and type of guns known to have been used at the siege of Petersburg. It is quite possible that other models may have been used, particularly by the Confederates. All members are urged to report to the Secretary, Army Ordnance Committee, 806 Mills Building, Washington, D.C., the location of any examples of pieces of ordnance mentioned in this list. Neither the Committee nor the National Park Service is in a position to purchase any of this equipment, but it is hoped that representative pieces can be obtained through donations. Such gifts would make a signal contribution to American military history.

LIST OF ARTILLERY USED IN THE SIEGE OF PETERSBURG

FEDERAL

Siege, Army of the Potomac:

<i>No. of Guns</i>	<i>Type</i>
38	30-pounder Parrotts, siege
36	Coehorn mortars
20	8-inch siege mortars
14	4½-inch siege rifles
12	8-inch siege howitzers
11	12-pounders, field
10	10-inch siege mortars
10	100-pounder Parrotts, rifled
9	20-pounder Parrotts, rifled
8	12-pounder field howitzers
6	10-inch seacoast mortars
4	10-pounder Parrotts, rifled
4	3-inch ordnance, rifled
2	32-pounder howitzers
1	24-pounder howitzer
1	6-pounder Sawyer, rifled
1	13-inch seacoast mortar
1	30-pounder, rifled (Brooke, captured from the Confederates)

Field Artillery, Army of the Potomac:

<i>No. of Guns</i>	<i>Type</i>
60	12-pounders, light
52	3-inch guns
12	Coehorn mortars

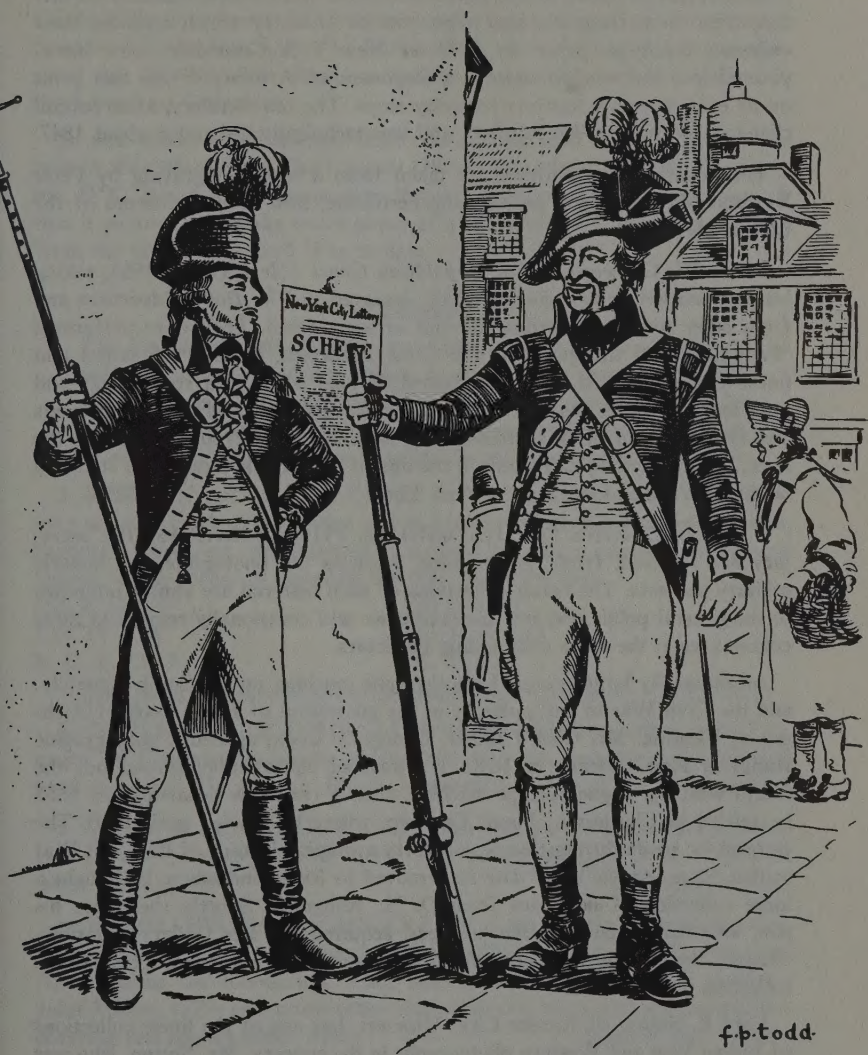
Special name or description:		
<i>No. of Guns</i>	<i>Type</i>	<i>Location</i>
12	Napoleons.....	Artillery Reserve
1	8-inch Columbiad.....	
1	100-pounder Parrott on Dahlgren carriage.....	Bermuda Hundred
1	100-pounder Parrott on siege carriage.....	Bermuda Hundred
1	5.8-inch Sawyer gun.....	Battery Sawyer, Bermuda Hundred
	24-pounder Coehorns.....	Ft. McGilvery and Battery 12
1	3.8-inch Sawyer.....	
1	3-inch Parrott.....	
4	10-inch guns.....	Ft. Morton

CONFEDERATE

Captured April 2, 1865, Petersburg and Bermuda Hundred lines:

<i>No. of Guns</i>	<i>Type</i>
18	24-pounder Coehorns (iron smooth bore)
9	8-inch siege mortars (smooth bore)
7	12-pounders, light, brass (J. R. A. maker)
6	3-inch rifles
5	6-pounder iron guns (smooth bore)
4	12-pounder Coehorns (iron smooth bore)
4	30-pounder Parrotts (smooth bore)
3	12-pounders, light, brass (U. S.)
3	24-pounder howitzers (U. S.)
3	3-inch rifled (T. T. S. L. maker)
2	8-inch siege mortars (smooth bore)
2	8-inch howitzers, siege (smooth bore)
2	12-pounders (iron smooth bore)
2	12-pounder mountain howitzers (smooth bore)
2	24-pounder mountain howitzers (smooth bore)
2	32-pounder guns (short; smooth bore)
2	32-pounders (banded and rifled)
2	8-inch Columbiads
2	12-pounders, (iron; J. R. A. maker)
1	3.67-inch Blakely (rifled)
1	3-inch Blakely
1	20-pounder Parrott (rifled)
1	30-pounder Parrott (rifled)
1	10-pounder Parrott (J. R. A. maker)
1	30-pounder Brooke (rifled)
1	4.64-inch Brooke gun
1	4.5-inch Navy gun
1	12-pounder rifled (made in Richmond)
1	32-pounder Navy gun (smooth bore)
	Whitworth guns

NEW YORK GRENADIERS, *ca.* 1790. This was one of the several militia companies that was formed in New York immediately after the British evacuation. It was a flank, or unformed company, of the 1st Regiment of the Militia of the City and County of New York. It was modelled after the famous grenadier corps of Frederick the Great and came to be considered an elite organization. Under Captain George Harsin it marched in the Inaugural Parade of 1789.



f.p.todd.

NEW YORK GRENADIERS, CIRCA 1790

At this period most of the uniformed units were called Artillery to differentiate them from the beat regiments of Infantry which confined their existence chiefly to paper. In 1799 the New York Grenadiers were incorporated into the newly-formed 6th Regiment of Artillery. From this point on its existence as a separate company stops. The 6th Artillery, after several changes, became the 9th Artillery and was technically disbanded about 1847.

The details of the uniform are taken from a copper engraving by Peter Rushton Maverick on a membership certificate, now in the Museum of the City of New York.

Rufus W. Grisword in *The Republican Court* (New York, 1856), taking his information from accounts which appeared in *The Daily Advertiser* and from other sources, describes the unit in some detail. They were uniformed "in imitation of the guard of the Great Frederick, of only the tallest and finest-looking men of the city, dressed in blue coats with red facings and gold lace broideries, cocked hats with white feathers, and white waistcoats and breeches, and black spatter-dashes, buttoned close from the shoe to the knee." They were the third unit in the line of march. They carried a standard bearing the arms of the State of New York. F.P.T.

COLLECTIONS OF HISTORICAL PHOTOGRAPHS. The secretary has received, from time to time, requests for photographs of historic military subjects. The better collections of such material are almost unknown to the general public and for this reason we will occasionally remark in these columns upon the more outstanding collectors.

An unusually large group of photographs touching on the South generally, and the Civil War in particular, is in the possession of H. P. Cook of Richmond, Virginia. Mr. Cook's father, George S. Cook, opened a photographic studio in New Orleans in 1840. He traveled considerably throughout the South with the daguerreotype machine, then a very new departure. In 1855 he settled in Charleston, South Carolina, where he resided until 1880. The pictures he made during this period form a graphic history of the Civil War in that State. At the latter date he removed to Richmond where he bought a large collection of negatives from D. H. Anderson. Shortly thereafter his son, who had taken over the business, acquired the Lee Gallery negatives. Thereby the present Mr. Cook gained what is probably the largest professional collection in the South.

Fred E. Sutton of Kansas City, Missouri, has one of the finest collections of Indian War and Western photographs in the country. Mr. Sutton, who was himself a participant in many of the Indian War episodes, has been collecting this material for over sixty years. Another collection of Western photographs is owned by N. H. Rose of San Antonio, Texas. Mr. Rose is an expert photographer and many of the negatives were taken with his own camera. Another

famous photographer of Western life was Mr. David F. Barry, who operated chiefly in the Northwest. His extensive collection of negatives is now in the possession of the Hon. Usher L. Burdick, Member of Congress. It is understood that Mr. Burdick intends eventually to place the original negatives in the Library of Congress.

So well-known is the splendid collection of American military photographs now in the Office of the Chief Signal Officer, Munitions Building, Washington, D. C., that it seems almost superfluous to mention it here, save to remark that it pictures practically every phase of activity of the United States Army from the time of the Civil War to date.

Queries

The Foundation will undertake to obtain answers to any question on military historical subjects which do not require lengthy research. All correspondence should be addressed to the Secretary. It will be replied to by mail and the more interesting material will be published. Members are urged to give their aid in obtaining replies.

3. GERMAN ARMS MARKINGS. In looking over a collection of German weapons of the World War period I have noticed that most of the rifles, bayonets, sabres, etc., are stamped by a metal die with a group of letters and figures, which appear to designate the unit. Examples are:

153 R 11.194	36 R 6.147
1 M IV 2.71	13 T. P. 6.13
R. B. T. 13.52	G. F. 1.3

Where could I obtain information about these markings? A.G.B.

4. CONFEDERATE INSIGNIA. What would be the button worn by a major of Confederate cavalry about 1863-4? I am painting a picture and need this detail. He was in a Florida regiment. A.S.A. (see replies)

5. GERMAN MACHINE GUNS. How was the German heavy machine gun (Maxim) usually carried in the field during the World War? Was it taken down at all? G.G. (see replies)

6. REVOLUTIONARY GUN CREWS. I am seeking information concerning the formation and duties of a field artillery gun crew in the American Army during the Revolution. I am familiar with *A Treatise of Artillery*, John Muller, 1779, and a few other similar works, but I find the instructions covering this subject differ widely. LIMBER (see replies)

Replies

4. CONFEDERATE INSIGNIA. There are three types of buttons that might have been worn. The most likely would be the kind marked CSA,

which were worn quite generally by officers throughout the entire army. The next possibility would be the type specified in early regulations which bears the single letter C. Then he might have worn a button bearing the state seal of Florida.

5. GERMAN MACHINE GUN. The Maxim machine gun, model 1908, was (and still is) carried by the infantry on the march on carts *Gewehrswagen*, usually horse-drawn. In action the gun was removed from the sled and base (*Schlittenkuffen mit Schlittenboden*). One of the crew of six men carried the gun, resting on his shoulder, and another carried the sled and base on his back, with the two front legs over his shoulders. For short moves the gun was picked up intact by from two to four men and carried as a litter or pulled along the ground as a sled, by means of the front legs. There are many illustrations showing the Maxim being manhandled but one of the most recent and interesting groups is contained in the special military issue of the *Illustrierte Zeitung* of November, 1936.

6. REVOLUTIONARY GUN CREWS. I cannot pretend to answer LIMBER's question authoritatively, but I suggest he read William Stevens, *A System for the Discipline of the Artillery* (New York, 1797). It was written after his period but was based largely on experience gained therein. Together with Amasa Smith's *A Short Compendium of the Duty of Artillerists* (Worcester, 1800), it forms the best American works on artillery drill and tactics of the post-Revolutionary era.

H. McT.

The enlisted personnel authorized for a company of artillery of four guns by the Resolution of the Continental Congress, July 29, 1775, consisted of 4 sergeants, 4 corporals, 8 bombardiers and 68 matrosses. The bombardiers were supposed only to handle mortars and howitzers. This was, however, far from a normal organization, for in 1778 the proportion of grades differed and the rank of gunner was introduced. This term was somewhat loosely used and I believe finally came to signify a duty rather than a grade. Generally speaking the gunners—there were usually four to a piece—were the artillerymen who actually handled the gun in action, one directing and one firing the piece, one handling the cartridges and charging the piece, and one handling the sponge and rammer. Under some systems a gunner tended the vent (a responsible job), while under others a corporal or even a sergeant did this duty. The matrosses were the counterpart of our modern cannoneers. They carried the ammunition haversacks, manned the drag ropes when the piece was moved, carried the side boxes, and did the heavy work generally.

Your questioner is right in saying that the drill regulations differed widely. This is probably due to the fact that they were based on different European models. Of course, in actual practice, the American artilleryman had to be a jack-of-all-trades, for the number of men in the crews rarely came up to that specified in regulations.

P.A.